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COMPLETE SPECIFICATION

Thus, for example, for a nonaqueous solvent, 85
may be covered or lined with a curved tubes
layer in the manner described above. This proce-
dure may be used, for example, with steel 90
furniture and in the chemical industry, in
connection with bicycle handle-bars, bicycle
carriage handles as well as all other handles,
supporting rods, switch levers, clinical in-
struments and the like. Hoses, particularly 95
high-pressure hoses, may be obtained in a
similar manner in that, at will, a covering or
a lining may be applied on the outside or the
inside, respectively, of a helically formed
metal hose or of a correspondingly formed
fabric or textile material. Covered parts for
motor vehicles or for the building industry
may be quickly and cheaply covered in this
manner, even when they are of complicated 100

shapes. Any thickened portions up to two or three times the normal diameter do not interfere with this method being used. It should be obvious from the foregoing explanations that even chains and cables, e.g. for locking a bicycle or for similar purposes, can be covered in the manner described. The examples given do not in any way exhaust the possibilities for which the method may be employed.

It is clear that the range of elasticity of the substance in tubular form must be sufficient to accommodate itself to allow for variations in the width of the original rough shape. If an even better adhesion of the layer of polyvinyl chloride is desired, the layer may be coated beforehand, on its surface which is later to be the adhering surface, with a known solvent or adhesive. This solvent may obviously be applied to the adhesion surface of the article to be covered.

The elasticity of soft-formed synthetic thermoplastic materials such as polyvinyl chloride is greater than with hard masses. Generally speaking, therefore, the method according to the invention may be carried into practice more easily and more effectively with a soft material than by using a hard-set material. If it is necessary to provide a comparatively hard covering on bends or over curvatures, then it is possible to proceed in the manner already mentioned, that is, the synthetic thermoplastic substance is first of all softened by mixing in some softening agents, which are subsequently removed during the final heat treatment. The removal of the softening agents may be facilitated by dissolving out with a suitable solvent. Such softeners, which industrial technicians usually do not like using because of their imperfect stability and which, on the other hand, are quite generally known, may be used with advantage in the present case. By selecting a suitable mixture between removable and stable softeners, the character of the finished covering can be extensively adapted to practical requirements.

Flexible hoses produced in accordance with this method may be cut open longitudinally to provide foils and bands which will stretch in all directions. This foil is used with very great advantage, for example, for covering spherical surfaces, packing, and so on.

The extrusion of polyvinyl chloride generally takes place at about 140° and a tubular form assumed at this temperature can be considered as permanent. Then the hose or the tube is heated to about 100°—110° C. and then the expansion or contraction is carried out. Following on this, the expanded or contracted shape is temporarily stabilised by a further cooling. The temperature at

which the elasticity is sufficiently reduced is in the region of 40° or below. After the material is placed around or inside the article, the original elasticity is again made effective by raising the temperature to about 100—120° or higher until the desired tight application of the covering or lining is achieved. The various temperatures fluctuate according to the nature of the coating or lining material.

Articles of various materials, such as for example iron, metal, wood or ceramics may be provided with a coating or a lining of polyvinyl chloride or like synthetic thermoplastic substance by the process according to the invention.

What I claim is:—

1. A method of coating an article with a layer of polyvinyl chloride or like synthetic thermoplastic substance which comprises the steps of heating the substance and forming it into a tube, under-dimensioned compared with the article, cooling the tube from the temperature at which it was formed, reheating the tube, dilating it and cooling it to stabilize the dilated form, fitting the tube on the article and finally reheating the tube to restore its elasticity so that it contracts and adheres closely to the article.

2. A method of lining a hollow article with a layer of polyvinyl chloride or like synthetic thermoplastic substance which comprises the steps of heating the substance and forming it into a tube over dimensioned compared with the article, cooling the tube from the temperature at which it was formed, reheating the tube, stretching it and cooling it to stabilize the stretched form, introducing the tube into the hollow article and finally reheating the tube to restore its elasticity so that it expands and adheres closely to the article.

3. A method of coating or lining an article in accordance with Claim 1 or Claim 2, wherein a solvent for the thermoplastic substance, or an adhesive, is applied either to the surface of the tube which is to adhere, or to the surface of the article which is to be coated or lined, before the tube and the article are brought into contact.

4. A method of coating or lining an article in accordance with Claim 1 or Claim 2, wherein the thermoplastic substance is softened by the use of a swelling medium or softening agent prior to final reheating.

5. A method of coating or lining an article in accordance with Claim 4 wherein removal of the swelling medium or softening agent is accelerated by dissolving out with a solvent.

6. A method of coating or of lining an article with polyvinyl chloride or like synthetic thermoplastic substance substantially

as herein described.

7. An article when coated or lined with
polyvinyl chloride or like synthetic thermo-
plastic substance by the method claimed in
5 any of the appropriate preceding claims.

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